

## Flying Pig Lab

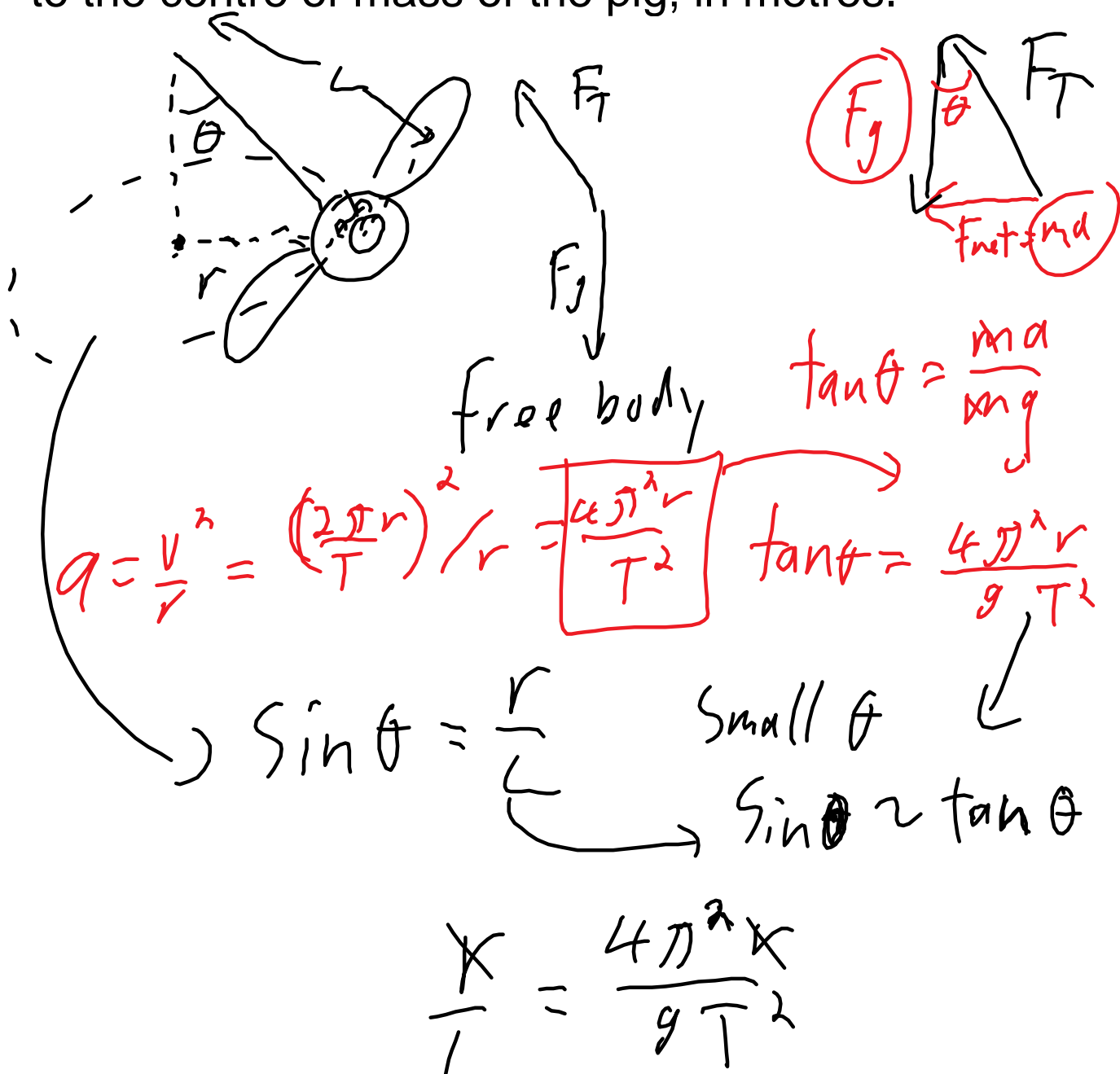
name\_\_\_\_\_block\_\_\_\_\_

Purpose: Determine the relationship between the Length,  $L$ , and Period,  $T$ , of a toy pig on a string moving in circular motion.

Hypothesis:

Period,  $T$ , is the time for the toy to make a complete circle, in seconds.

Length,  $L$ , is the distance from the rotation point to the centre of mass of the pig, in metres.



$$\frac{X}{L} = \frac{4\pi^2 X}{gT^2}$$

$$\boxed{T^2 = \frac{4\pi^2 L}{g}} \quad \text{test}$$

Graph  $T^2$  vs  $L$

% error of slope vs  $\frac{4\pi^2}{g} \boxed{4.0 \frac{s^2}{m}}$

Observations

$L(m)$	time for 3 swings	$T$ (s)	$T^2$ (s <sup>2</sup> )

$\div 3 =$

$\frac{s^2}{m}$